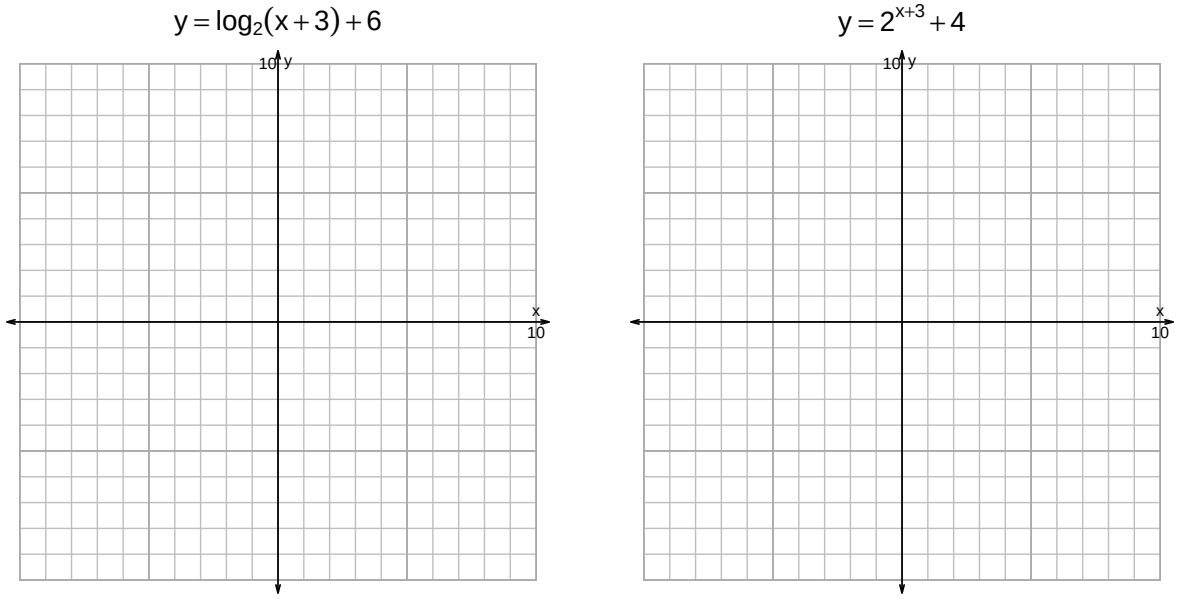
Name: Date:

S18QUIZ: EXP LOG (QUIZ V273)

1. Graph $y = \log_2(x+3) + 6$ and $y = 2^{x+3} + 4$ on the grids below. Also, draw any asymptotes with dotted lines.



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$-17 = \left(\frac{-7}{3}\right) \cdot 2^{5t/4}$$

3. An exponential function $f(x) = 6.27 \cdot e^{1.27x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(-0.9)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(70)$.